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OF

RUPTURE OF THE UTERUS;

AND SOME REFLECTIONS UPON THE ABUSE OF ERGOT IN
OBSTETRIC PRACTICE.

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RUPTURE of the uterus—one of the most fatal, but fortunately also one of the most rare, of all the dangerous accidents attending parturition—is so seldom met with that every well-observed case should be put upon record. This occurrence, fatal in almost every instance (in at least ninety-five per cent. of the cases recorded), is only too often due to a want of vigilance, to tardy interference, sometimes to ill-timed and ill-advised interference, on the part of the accoucheur. In many regions of England and the continent of Europe, where pelvic deformities abound, rupture of the uterus may result from these causes—healthy labor pains, a healthy child, and a narrow outlet; sometimes the uterine tissue is lacerated by pressure of the contracting muscle against bony projections of a diseased pelvis. In this country, however, especially in the Western States, I may almost say throughout the entire land, with the exception of those great cities which are

centres of poverty and misery, as well as of wealth and luxury, a deformed pelvis is almost unknown to the obstetrician. But, unfortunately, where by a healthy development of the female frame we are freed from the main cause of this terrible dystocia, a cause sufficient for its occurrence is offered by the physician himself, and the most frequent source of uterine rupture can safely be said to lie in meddling midwifery of the worst kind—in the abuse of ergot.

Much is said in condemnation of meddling midwifery as applied to early operative interference, to version, or to the use of the obstetric forceps; but meddling midwifery of a far more dangerous kind, because less evident and more common, has to a great extent escaped criticism; this is the liberal use of ergot in obstetric practice. What the forceps are to the skilled obstetrician, ergot is to the unthinking practitioner and the midwife. Aye, more, it supplies the place of every other remedy—of patience as well as the skilled hand. Ergot, I regret to say, seems to be the all-powerful and the only agent in use in the obstetric practice of but too many; and so much more injury than good is done by this drug, so potent for good or evil, that I would condemn its use in obstetric practice altogether. Parturient women would be better off if ergot was stricken from the pharmacopœia: it is never necessary, and where really needed cannot be relied upon for immediate action, so that other means must be resorted to. It does good service in its proper place, if given after the contents of the uterus have been expelled—to prevent hemorrhage, and to stimulate contraction when labor is completed, especially after the physician has left his patient. Where really needed, in cases of hemorrhage, in which the uterine fibres refuse to act, the

drug cannot be relied upon; the stomach, in that enfeebled condition of the system, refuses to absorb it, and, if absorbed, its action is slow and insufficient. We must use more effective means. Hence, in extreme cases, in which uterine contractions are demanded, it is useless; and in cases in which it does answer the desired purpose, we have a choice of other means more satisfactory, and less injurious. A vast deal of injury to women in labor would be avoided—in confinement at term as well as in abortion—were this dangerous drug ostracized.

None will deny that in extreme cases—in cases of post-partum hemorrhage, for instance—more energetic means for stimulating uterine contractions are demanded; and even in milder cases we also have less harmful and more effective means. If we are doubtful of sufficient uterine contraction after the expulsion of the placenta, friction or kneading of the fundus, quinine, or injections of hot carbolized water—vaginal or uterine—will by far better answer the purpose. A vaginal injection of hot carbolized water after expulsion of the placenta is stimulating, cleansing, and advantageous in many ways. Like ergot, it hastens the contraction, and, beyond that, cleanses and lessens the danger of infection. During labor, ergot should rarely be used; for safety's sake, I should say, never. Although the injury done by the drug is not often severe—it maims oftener than it kills—it is all the worse for its frequency, and, not being so palpable, has escaped notice and condemnation to a great extent. The use of this drug during labor is a widespread evil; the authorities always call attention to ergot as a powerful oxytocic, and, though they limit its use, do not sufficiently warn us of the terrible dangers which accompany it, and the practitioner is more or less given the impression that it—ergot—is the most necessary aid

to the accoucheur: this illusion must be dispelled, and I will here show how serious may be the evil consequences of giving the drug during labor.¹ The authorities claim that in by far the greater number of cases of rupture of the uterus, the cause may be sought in the use or abuse of ergot; and in order to demonstrate clearly the injurious effect of that drug, I shall relate the two that have come under my own observation.

Although each possesses features of interest in itself, I look upon these terrible cases of death of mother and child, the sudden taking away of strong, healthy women in the midst of the parturient process, as the most striking demonstration possible of the dangerous abuse of ergot.

CASE I.—A healthy negro woman, some twenty-six years of age, who had borne two children at term without unusual suffering was about being confined with her third; the waters had broken and labor was progressing, but apparently not to the full satisfaction of the impatient attendant, whether physician or midwife I do not recollect, and ergot was given. The pains came more rapidly and with increasing severity; and, as the story of those pres-

¹ I have been of late so thoroughly impressed with the necessity of limiting the prevalent use of ergot, on account of the many resulting evils, to which my attention was first directed by these fatal cases, that I was induced to read a paper upon the use and abuse of ergot at the late meeting of the American Gynecological Society. Being in hopes that if other—more effective and harmless—means for stimulating uterine contractions were more generally introduced, ergot would be more readily given up than by merely pointing out the dangers of its use, I have supplemented this by a paper read before the St. Louis Obstetrical and Gynecological Society, on the use of external manipulation in obstetric practice; for it is mainly by the proper *management* of labor—by *patience*, by *posture* of the patient, and by *external manipulation*, that we can safely accomplish what ergot was *supposed* to accomplish in labor.

ent is, the patient, in the agonies of intense labor-pains, suddenly cried out, suffering from a pain more severe than any preceding ; she fell back, apparently in great distress, labor-pains completely ceased, and she sank rapidly with great suffering. The attendant having left, a physician was sent for, who found the patient in a state of collapse, death soon following.

It was my good fortune, by the kind permission of the Coroner, Dr. Auler, to make the post-mortem examination. The abdomen being opened, I found the foetus involved in large masses of clotted blood in the lower left portion of the abdominal cavity ; the uterus was flabby, partially contracted, containing the somewhat adherent placenta and large clots of blood. The laceration extended from the central portion of the cervical juncture, perhaps a little to the left, through the lateral portion of the body into the upper third. The pelvis was normal, with the exception of a bony protuberance near the ischio-pubic juncture upon the brim ; but whether the rupture was in any way furthered by pressure of the tense muscles against this exostosis, I am unwilling to say. The child was of moderate size, if anything, below the average ; the os was partially dilated, yielding readily. To my mind, the fatal result must mainly, if not altogether, be ascribed to the hyperactivity of the muscles, over-stimulated by ergot.

CASE II. was that of a lady, aged twenty-five, married four years, with a fine frame and an unusually healthy, vigorous constitution. She was delivered three years ago of her first child in a normal labor with good getting up, and passed through her pregnancy without unusual symptoms, being in the best of health. Uterine pain began during the day ; at 10 P.M. the midwife arrived, the

pains continuing with moderate regularity. She remained during the night, but left on the following morning, returning toward evening. The pains continued with increasing severity, the midwife remaining throughout the night and also upon the following day, the third ; as the labor seemed to be unnecessarily delayed, under favorable circumstances, with the patient in excellent condition, a physician was sent for, who arrived at 6 P.M. He pronounced her condition good, and at once ordered ergot. He informs me that he found the os dilated, but the parts rigid and dry, and that the arm came down at half-past nine. The ergot arrived at 7 P.M. One drachm was given, and in thirty minutes a second ; a few minutes later a third (soon after giving this third dose the attending physician upon examination informed the friends that the child was not in the right position, that an arm was presenting). Having placed the patient under chloroform at 10 P.M., he attempted an interference, but failing, sent for a consultant, who was unable to accomplish more, though desisting only after persistent efforts continued during the space of an hour. A second consultant was then sent for, as the case appeared a desperate one. Arriving at 2 A.M. on the morning of the fourth day, he, too, attempted to turn the unusually large child in the now firmly contracted uterus, but with no more success than his predecessors. After the previous attendants had again attempted to interfere, but with no better success, the patient was left at three o'clock in the morning, with instructions to refill the bottle of ergot and continue its use, as the labor-pains seemed to have ceased. Between two and three o'clock she suddenly felt a sharp pain, and cried out with suffering, complaining at the same time of the excessive motion of the child ; after this, however, all

was quiet ; the physicians had left with instructions to continue the medicine, and neither labor-pains nor motion of the child was again felt, the patient remaining very quiet for the balance of the night.

I was summoned on the morning of the fourth day, in great haste, with a request to "bring my instruments to cut up a child as it couldn't be delivered," and reached the patient at 10 A.M. I found her a healthy, strong, young woman, partially sitting up in bed, semirecumbent, supported by both arms, apparently none the worse for all she had undergone during the three days of this protracted labor. The peculiar position, and the anxious care with which she seemed to preserve it, guarding herself against even the slightest change, struck me at once. Equally remarkable was the shape of the abdomen, which was peculiar, presenting a well-defined prominence, bulging out directly beneath the rib under the region of the heart in the left side. Her pulse was excellent, quite strong, and regular. The lucid statement of the attending physician, who had arrived at the same time, the history briefly gathered, her excellent condition, the immense discolored arm which hung limp in the vagina—all led me to infer that it was merely a question of turning an unusually large child, and I expected nothing worse. Heeding but little the peculiar prominent mass in the epigastrium, I was simply puzzled by the distinctness with which she made the statement that early in the morning, at 2.30 A.M., the child gave a sudden jump, which made her cry out with pain and say that she wished that it would not move so violently, whilst the discolored arm seemed to point to the death of the foetus at a much earlier period.

Although every movement caused her great pain and could be accomplished but slowly, I at once

placed the patient in the proper position, in the dorsal decubitus, upon the edge of the bed. Her pulse, which had become somewhat rapid under the excitement, soon recovered, when the chloroform had taken effect. I found a third shoulder presentation; the right arm in the vagina, the parts excessively dry and tense, the uterus spasmodically contracted and not in the least relaxed by the chloroform, so that it was with difficulty that I could move my hand in the cavity. The child was of enormous size, my hand would not pass beyond the abdomen, nor was I enabled to move any of the parts in the least. The conditions did not seem improved after disarticulation of the presenting arm. The attending physician introduced his hand, after mine became completely tired out, with no better result; after another effort I was enabled to bring down what I supposed by its size to be a leg, but found it to be the left arm, which I also disarticulated. Still unable to accomplish more, I attempted eventration, gaining but little on account of the tetanic contraction of the parts. I was greatly puzzled at not being able to find any portion of the lower extremities, which in this position should have been in front quite near the os; as far as I was able to move my hand within the rigidly contracted uterus I could find nothing but the monstrous body of the child, and began to suppose some deformity of the foetus, until I was enabled to reach the hips, but these were closely constricted by a ring of uterine tissue. I now suspected the true condition of affairs—a rupture of the uterus, the hips within the opening, the breach forming the bulging prominence within the abdominal cavity directly beneath the ribs.

Seeing no relaxation of the tissue, I informed the relatives of the condition of affairs and the urgency

of decisive interference. Consent was at once given to any measures that might appear necessary, and although having only my pocket-case at hand, I made the necessary preparations to open the abdominal cavity and extract the child. Before, however, taking this step, which seemed a hazardous one with this slender apparatus, especially without properly prepared sponges, I determined to make one more effort at version, and succeeded in passing my hand along the hips of the child, through the constricting ring into the abdominal cavity, and was enabled to seize one foot, which I found directly beneath the diaphragm. Version and extraction were rapidly accomplished, the attending physician greatly aiding by grasping and following down the uterine fundus; with the assistance of friction and cold water the womb fairly contracted, and I at once delivered the placenta, and then mopped the uterine cavity, first with hot water, and then with perchloride of iron. There was no loss of blood, and the uterus contracted into a firm and hard, although very large, globe. Child and placenta were both of enormous size, and in beginning decomposition. The patient was brought to bed; brandy was given by subcutaneous injection; the pulse, which had become very rapid and feeble toward the last, seemed to revive a little, and she recovered consciousness. Not a drop of blood was lost; the uterus remained contracted in a firm, hard, and enormously large globe. But notwithstanding the apparently favorable conditions, the pulse became very rapid and feeble, the patient sank, and died quietly within two hours after delivery.

In considering these cases, it will be seen that the first is a typical example of rupture of the uterus; the patient being seized suddenly with an intense

pain, the symptoms of internal hemorrhage, shock, and collapse following; the child expelled into the uterine cavity involved in the clots consequent upon internal hemorrhage.

The second, however, is remarkable in so far that the rupture, which was well characterized, did not result in any such consequences for the time being. The patient lived ten hours after the occurrence of the rupture, and the foetus, at least so far as the presenting parts were concerned, did not change position. The pulse gave no indication of shock or hemorrhage, nor was any hemorrhage visible. This peculiar condition is readily explained by the unusual size of the child: the huge trunk remained within the uterus, the head upon the right ilium, the breech beneath the diaphragm and abdominal wall in the abdominal cavity, so that this immense mass was firmly wedged in and tightly held within the firm contractions of an unusually powerful uterine muscle, which, in the lacerated portion, seemed to encircle the breech of the child as with a band of steel. The laceration was in the upper third of the left side toward the fundus. Another striking feature, to me at least, was the firm and permanent contraction, both before and after expulsion; the free use of ergot might have produced the former, hot water and perchloride of iron the latter.

Whatever of interest these two cases may have as cases of rupture of the uterus, both seem to me a terrible warning of the dangers of ergot in obstetric practice. In the first case nature, and if not nature, certainly the obstetric forceps, would readily have completed delivery without the slightest difficulty, had the uterus not been over-stimulated by the dangerous drug. In the second, delivery was impossible by the forces of nature, and the powerful muscle of an unusually strong body was driven to enormous exer-

tions, until it grasped in tetanic contraction the immense mass of the unusually large ovum, preventing any rectification of position, and, unable to expel the mass by its proper outlet, it gave way in the effort.

One word with regard to the final management of these cases. Notwithstanding the absence of all symptoms of hemorrhage, and the apparently perfect contraction of the uterus, a certain amount of blood and amniotic fluid must have escaped into the abdominal cavity, and, as a rule, a large quantity accumulates there, hence it is best to remove this; whether the child be delivered *per vaginam* or by abdominal section, the opening of the abdomen affords the patient a better chance of recovery, as hemorrhage can then be stopped, the lacerated surfaces of the uterine muscle properly united, and, above all, the abdominal cavity cleansed. This treatment was not here resorted to because the necessary apparatus was not at hand, not even within reach, and the patient was rapidly sinking from the shock received.

Of the lesser and more frequent evils which result from the use of ergot we hear but little, yet they are many; extreme cases, fortunately, are rare, but, not being reported, possibly are more frequent than is generally supposed.

Of all the milder, more harmless, and yet effective stimulants to uterine contraction, I would, if a medicine is to be given, mainly urge quinine, which is always a valuable aid to the parturient process in this climate; for the purpose of altering painful and ineffective labor-pains we have in opium and ipecac, especially in Dover's powders, a by far better and more natural means than in ergot; and for the purpose of furthering post-partum contractions, the one legitimate use of ergot to which I would see it limited, massage of the uterus and hot-water vaginal

injections are equally effective, more rapid, and preferable; the douche, when combined with carbolic acid, permanganate of potash, or other disinfectants, guards us at the same time from an even far greater danger. These means are always on hand, and why should we not resort to them in ordinary cases?

When necessity urges, as in case of post-partum hemorrhage, ergot certainly is useless, even dangerous, and cannot be relied upon: the stomach may not assimilate it, and, even should it do so, the action is slow, and only subcutaneous injections may be of use, whilst intrauterine injections of hot carbolized water, external manipulation, massage, or astringents—vinegar, alum, and above all perchloride of iron—within the uterine cavity, act immediately and effectively; friction of the surface, massage, and the hot vaginal douche will serve well before delivery is completed. Later, after expulsion of the ovum, and if more vigorous measures are necessary, we can rely upon intrauterine injections and the use of astringents within the cavity.

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